



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/537,114

06/02/2005

Jill MacDonald Boyce

PU020487

8217

24498 7590 01/21/2010
Robert D. Shedd, Patent Operations
THOMSON Licensing LLC
P.O. Box 5312
Princeton, NJ 08543-5312

EXAMINER

LEE, Y YOUNG

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

01/21/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/537,114 | Applicant(s) BOYCE, JILL MACDONALD | |
| | Examiner Y. Lee | Art Unit 2621 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 7-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I (species 1), Figure 2, in the reply filed on 11/24/09 is acknowledged. The traversal is on the ground(s) that there is no serious burden. This is not found persuasive because although the groups are similar, applicant fails to state that they are not patentably distinct. For example, it is noted that the search for an explicit reference picture weighting for a video cross-fade system is not required for an implicit reference picture weighting for a video cross-fade system, and vice-versa.
2. Applicant also asserts on page 2 of the Remarks that Group I fails to even mention "motion compensation". However, applicant is advised to re-examine her own application wherein claims 2-6 recite such limitation.
3. Applicant asserts on pages 3-6 of the Remarks that the restriction is improper because several dependent claims in Groups II and III are also dependent on claim 1. However, claim 1 was specified as a generic claim.
4. Applicant further asserts throughout the Remarks that the restriction is improper by citing various sections of the MPEP. However, applicant is reminded that the current application is a 371 application. Therefore, applicant should consider the guidelines under PCT Rules.

The requirement is still deemed proper and is therefore made FINAL.

5. Claims 7-25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/24/09. It

Art Unit: 2621

is noted that claim 8 was inadvertently grouped with the “implicit mode” species in the last office action. Therefore, claim 8 is withdrawn for the same reasons as claim 7.

Drawings

6. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Saunders et al (6,570,923).

Saunders et al, in Figure 8, discloses the same video encoder for encoding video signal data for at least one cross-fade picture disposed temporally between a fade-out start picture (Video A) and a fade-in picture (Video B), which are used as reference pictures for coding the at least one cross-fade picture as specified in claim 1 of the present invention, the encoder

Art Unit: 2621

comprising a reference picture weighting applicator (120) and a reference picture weighting factor unit (110) in signal communication with the reference picture weighting applicator for assigning weighting factors corresponding to each of the fade-out start picture and the fade-in end picture, respectively, for coding the at least one cross-fade picture (col. 4 Lines 40-col. 5 Lines 25).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders et al in view of Yoneyama et al (Fast Dissolve Operations for MPEG Video Contents).

In regards to claim 2, Saunders teaches the use of motion vectors to produce a cross-fade picture in MPEG-2 video streams (Col 1 Line 38, Col 6 Lines 20-35). Saunders further teaches the picture weighting applicator connected to an encoder (E2, Figure 8). Saunders does not specifically teach the use of a compensation unit for providing a motion compensated fade-out start or end picture responsive to the reference picture weighting factor unit. Yoneyama teaches the adjusting of motion vectors for use with a dissolve operation for MPEG-2 video (Sections 3-1 through 3-2, Figure 2). Yoneyama specifically teaches in Figure 2, the encoding process contains a motion compensation unit. It would have been obvious to employ the system of Saunders with the system of Yoneyama as both are similar systems for producing a dissolve effect in MPEG-2 video. In regards to claim 4, Yoneyama further shows in Figure 2, the dissolve

Art Unit: 2621

effect is performed on motion compensated reference frames. In regards to claim 5, Saunders and Yoneyama both teach the use of MPEG-2 encoding which supports bi-directional encoding. In regards to claim 6, Saunders teaches the fade-out start and fade-out end pictures are at opposite directions to all of the at least one cross-fade pictures (Col 3 Lines 65-67, Col 5 Lines 10-25, Figure 2). Yoneyama also teaches the fade-out start and fade-out end pictures are at opposite directions to all of the at least one cross-fade pictures (Sections 3-1 to 3-2 and Figure 2). It would have been obvious to employ the system of cross-fading as taught by Saunders and Yoneyama.

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders et al in view of Yoneyama et al as applied to claim 2 above, and further in view of Applicant's admitted prior art (AAPA).

Although Saunders et al discloses a common reference picture store 130 in signal communication with each of the reference picture weighting factor unit for storing each of the fade-out start picture and the fade-in end picture, it is noted both Saunders et al and Yoneyama et al differ from the present invention in that they fail to disclose such storage is in communication with the motion compensation unit as specified in claim 3. AAPA, however, teaches the concept of such well known reference picture storage 170 in signal communication with the motion compensation unit for storing each of the fade-out start picture and the fade-in end picture.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having all three of the references of Saunders et al, Yoneyama et al, and AAPA before him/her, to utilize the well known reference picture storage technique as taught by AAPA in the video encoder of Saunders et al in view of Yoneyama et al in order to increase the compression efficiency of the encoder.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. Lee whose telephone number is (571) 272-7334. The examiner can normally be reached on (571) 272-7334.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Young Lee/
Primary Examiner
Art Unit 2621

yl